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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,820	08/09/2001	Robert D. Juncosa	266/218	6843

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EXAMINER

FORMAN, BETTY J

ART UNIT

PAPER NUMBER

1634

DATE MAILED: 08/08/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/927,820

Applicant(s)

JUNCOSA ET AL.

Examiner

BJ Forman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-33 is/are pending in the application.
- 4a) Of the above claim(s) 19-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **FINAL ACTION**

This action is in response to papers filed 4 June 2002 in Paper No. 7 in which claims 27, 28 and 31-33. All of the amendments have been thoroughly reviewed and entered. The previous rejections in the Office Action of Paper No. 6 dated 5 March 2002 under 35 U.S.C. 112, second paragraph are withdrawn in view of the amendments. The previous rejections under 35 U.S.C. 102(e) are maintained. All of the arguments have been thoroughly reviewed and are discussed below. New grounds for rejection **necessitated by amendment** are discussed.

Currently claims 27-33 are under prosecution.

### ***Specification***

2. Applicant's substitute Specification filed 4 June 2002 in Paper No. 8 is acknowledged and has been entered. The Specification has been amended to insert a first paragraph containing reference to the prior application(s) as required under (37 CFR 1.78(a)(2) and (a)(5)).

### ***Priority***

4. Applicant's claim for domestic priority under 35 U.S.C. 120 is acknowledged. However, parent applications 08/534,454, filed 09/27/1995, 08/304,657, filed 09/09/1994, 08/271,882, filed 07/07/1994 and 08/146,504, filed 11/01/1993 do not provide adequate support under 35 U.S.C. 112 for claims 27-33 of this application. Specifically, the above parent applications do not provide support for the instantly claimed methods for optically examining a microlocation by illuminating the microlocation through a scanning microscope.

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Parent application 08/846,876, filed 05/01/1997 does provide support for the instantly claimed method. Therefore, the effective filing date for instant Claims 27-33 is the filing date of parent application 08/846,876 i.e. 05/01/1997.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 27-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Stern et al (U.S. Patent No. 5,631,734, filed 10 February 1994).

Regarding Claim 27, Stern et al disclose a method for optically examining a microlocation on an object comprising: illuminating at least a portion of the object by scanning light from a source through a scanning microscope onto the object and detecting light reflected from the portion of the object wherein the portion comprises an area having a plurality of microlocations (i.e. the substrate); determining the position of the microlocation by analyzing the detected reflected light (i.e. focusing, Claims 13-14); illuminating the microlocation with

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light (i.e. focused light) from the source through the scanning microscope utilizing the determined (i.e. focused) position of the microlocation; and detecting emitted radiation from the microlocation (Column 1, line 63-Column 2, line 13 and Claims 9-14).

Regarding Claim 28, Stern et al disclose the method wherein the step of determining the position of the microlocation includes use of information regarding the microlocation patterns. Stern disclose that the substrate is mounted on a computer-controlled x-y-z translation stage wherein positioning (i.e. focusing) is performed by adjusting the translation stage (i.e. focusing uses information regarding x-y-z position) (Column 5, lines 26-33). Additionally, Stern disclose that a position of each corner is interpolated to determine the position of the microlocation (i.e. focusing uses information regarding the microlocation relative to the corners) (Claim 18).

Regarding Claim 29, Stern et al disclose the method wherein the step of illuminating the microlocation illuminates no more than a single microlocation i.e. a first region of the substrate is illuminated (Claim 9, Column 18, line 26) wherein a region is substantially smaller than feature area (i.e. microlocation)(Column 15, lines 34-36).

Regarding Claim 30, Stern et al disclose the method wherein the step of detecting emitted radiation is subject to a field of view restricted to a microlocation i.e. only light reflected from the point of focus is detected while out-of-focus light is blocked (Column 6, lines 53-56).

Regarding Claim 31, Stern et al disclose a method for examining an object having multiple microlocations separated by interstitial areas (i.e. microarray having multiple and separate sites, Column 4, lines 18-29) comprising: simultaneously illuminating multiple microlocations by illuminating the substrate which contains multiple points; detecting reflected radiation from the object; comparing the information constituting reflected radiation with information regarding the structure of the object (i.e. the focused position of each corner, Claim 18); and determining one microlocation through a confocal microscope based upon the position information (Claims 9-14).

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Regarding Claim 32, Stern et al disclose the method of Claim 31 comprising examining a plurality of microlocations by illuminating at least two microlocations i.e. scanning the substrate and detecting radiation from the at least two microlocations to thereby examine the microlocations. Specifically the steps of exciting and detecting are repeated until all regions on the substrate have been detected (Claim 9, Column 18, lines 36-38) wherein the substrate comprises multiple and separate sites (Column 4, lines 18-29).

Regarding Claim 33, Stern et al disclose a method for determining fluorescence intensity from multiple microlocations disposed on the surface of a biological diagnostic system (i.e. microarray, Column 4, lines 18-29) comprising: scanning the surface of the diagnostic system with a laser source directed through a scanning confocal optical system (Column 5, lines 34-43); detecting light from the microlocations; determining the position of the microlocations by imaging reflected light (i.e. focusing); illuminating one microlocation through the confocal optical system based upon the determined position; and detecting from the microlocation where the detector masks emission from the object in regions other than the one microlocation i.e. the confocal pinhole transmits light reflected only from the microlocation and other light is blocked (i.e. masked) (Column 6, lines 53-58 and Claims 9-14) wherein the illumination does not extend substantially beyond the microlocation (Column 15, lines 34-36) and wherein fluorescence intensity from the multiple microlocations is determined (Column 15, lines 25-30).

#### **Response to Arguments**

Applicant argues that Stern does not teach the claims as amended comprising the initial step of illuminating a plurality of microlocations and measuring the light reflected from those locations followed by determining a microlocation and detecting emission from the microlocation. The argument has been considered but is not found persuasive for numerous reasons. First, the claims are not drawn to measuring reflected light. Therefore, arguments regarding measuring reflected light are not relevant to the claims or rejection. Second, Stern teaches the method as claimed comprising: illuminating the object by scanning light, determining a position (i.e. autofocus see Claim 14), and illuminating the microlocation and

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detecting emitted radiation from the microlocation (Claim 9). Therefore, Stern discloses the method as claimed.

Applicant further argues that the method of Stern differs from the claimed method because they direct light at a region of the substrate, collect light from that region and then direct light to a different region until all regions are scanned. The argument has been considered but is not found persuasive because while Stern may teach an embodiment which differs from the claimed method, they all disclose the method as claimed (Claims 9-14).

#### **Prior Art**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Trulson et al (U.S. Patent No. 5,578,832, filed 2 September 1994) teach a method for optically examining a microlocation comprising illuminating a substrate using a scanning confocal microscope and determining the position of the microlocation (Claim 14).

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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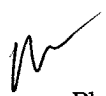
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BJ Forman whose telephone number is (703) 306-5878. The examiner can normally be reached on 6:30 TO 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-8724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

  
BJ Forman, Ph.D.  
Patent Examiner  
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August 7, 2002

  
STEPHEN Z. ZOMER  
PRIMARY EXAMINER